

Example 2. A $-6.0 \mu\text{C}$ charge and a $-4.0 \mu\text{C}$ charge repel each other with a force of 7.0 N . How far apart are these point charges?

$$F_E = \frac{k Q q}{r^2}$$

$$7.0 = \frac{(9 \times 10^9)(6 \times 10^{-6})(4 \times 10^{-6})}{r^2}$$

$$r = 0.18 \text{ m}$$